(51)Int.Cl.   H01M 8/02

(21)Application number : 05-117304   (71)Applicant : MITSUBISHI HEAVY IND LTD

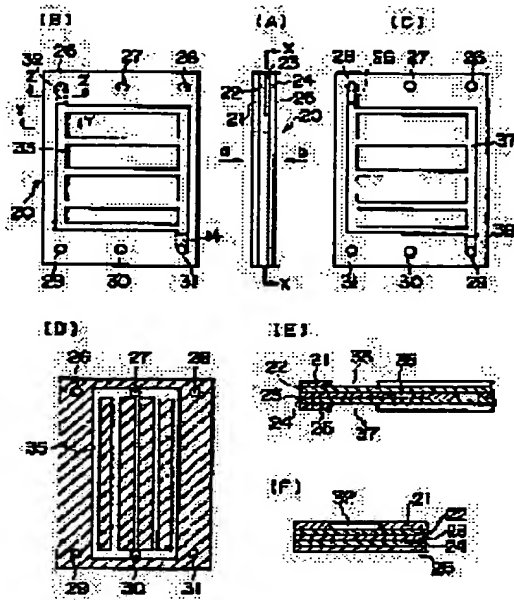(22)Date of filing :   19.05.1993   (72)Inventor : TOYAMA YUKIFUMI

(54) SEPARATOR FOR FUEL CELL

(57)Abstract:

PURPOSE: To reduce weight, dispense with grooving work, and facilitate molding by using a plurality of first layers consisting of conductive resin and second layers consisting of conductive resin and conductive fiber arranged between the layers to constitute a laminated body.

CONSTITUTION: A separator is formed of first layers 21, 23, 25 made conductive by mixing carbon powder or a metal powder to an epoxy resin; and second layers 22, 24 obtained by impregnating carbon fibers with the above conductive resin. A reaction gas comes in from through-holes 26, 28, runs into the groves 33, 37 of a reaction surface through passages 32, 36, and flows out from through- holes 31, 29 through passages 34, 38 after the reaction. A cooling water comes in from a through-hole 27 and flows out from a through- hole 30 through a reaction surface cooling passage 35. Since the main material of each layer is formed of the resin or fiber with low specific gravity, copying molding from a mold can be performed together with reduction in weight, dispensing with grooving work. Further, since the second layers are reinforced by the fiber, both strength and rigidity can be made equal to those of a metal.